

PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Daniel P. Cedrone

Group Art Unit: 3676

TO: USPTO

Serial No. 09/780,306

Examiner: Alison K. Pickard

Filed: February 9, 2001 **GRAVITY HINGE**

Declaration Under 37 C.F.R. § 1.132

Daniel Pompei Cedrone states as follows:

- I. I am the named inventor and applicant on the above application.
- 2. I reside at 17016 Knoxwood Dr., Huntersville, NC 28078.
- 3. I am the founder and President of Poly-Tech Industrial, Inc. ("Poly-Tech") having a place of business 13420 Reese Boulevard West, Huntersville, North Carolina 28078.
- Poly-Tech is an industrial plastics distributor that manufactures custom components that solve particular industrial problems. A number of our products and services can be viewed at the following web sites: polytechindustrial.com, gravigate.com and hangwhere.com.
- 5. My formal education includes two years studying civil engineering at Merrimack College in North Andover Massachusetts. I have also studied plastics engineering and mechanical engineering for two years at the University of Massachusetts at Lowell.
- 6. I have approximately 23 years of working experience in the field of industrial engineering. I began by working in a family business at age 15 that carries out the same general type of business as Poly-Tech.
- 7. I am a member of the American Society of Manufacturing Engineers (ASME) and of the Society of Plastics Engineers (SPE).
- 8. I travel and give seminars on high performance plastics and plastics engineering, and I have particular expertise in the area of plane bearings and their design.

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- 9. Some of my representative clients and customers, including seminar clients, include The U.S. Navy, Purina, Exxon Mobil, Baxter Healthcare, and The Timken Company.
- 10. I invented the gravity hinge described in the application (which we refer to as the GRAVIGATE®). The goal was to provide a springless, self-closing, and in most cases one-way, hinge that would in turn support and define self-closing, one-way gates, particularly safety gates that help protect workers on clevated structures by (1) preventing a gate from opening in an undesired direction and (2) closing the gate automatically, simply, reliably, and securely.
- 11. Since it's commercial introduction, yearly sales of the hinge, and of self-closing gates incorporating the hinge, have grown to approximately 1000 hinges per year representing approximately \$350,000 at our price, and approaching \$500,000 at retail.
- 12. The hinge and gate has found numerous other applications, some of which were frankly unexpected on my part.
- 13. Basically, the invention replaces various spring-closing mechanisms for gates or doors that should (or must) automatically return to a closed position. The nature and design of the gravity hinge of the invention is such that it can last approximately 10 years in service as opposed to the approximately three years that can be expected from a spring mechanism that carries out the same tasks.
- 14. The hinge of the invention is now used in applications that include ladder way guards, floor opening protection, stairway guards, mezzanine walkway guards, roof ladder guards, tower walkway guards, tower ladder way guards, one way personnel gates, gantry entrances and exit guards, equestrian and livestock gateways, large equipment ladder guards, and dangerous equipment guards.
- 15. These applications serve industries that include railroads, paper and pulp, marine, food processing, mining equipment, water treatment, off road equipment, farming, amusement parks, chemical, timber handling, steel handling, and nuclear, fossil and hydro power.
- 16. The gravity hinge has been accepted in the McMaster-Carr catalogue (www.mcmaster.com), which is an authoritative and globally distributed industrial sales

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catalogue. McMaster's adoption of the hinge of the invention represents an objective thirdparty recognition of the value of the invention because its placement there is a decision of the catalogue rather than myself or of our company.

- 17. As indicated on page 1744 of the McMaster catalog, our hinges, when combined with a fiberglass frame, create a safety gate without springs that retails for prices ranging from between about \$338 and \$398.
- 18. Our representative sales of the invention are indicated in the attached exhibits.
- 19. Exhibit 1 represents our sales beginning in March of 2000 through June of 2002 at an average retail price of about \$150 per hinge.
- 20. Exhibit 2 represents our sales from June 2002 through March 15, 2004.
- 21. Accordingly, in addition to having significant value in its own right as a self-closing hinge, the invention has created a direct market in self closing safety gates that incorporate the hinge according to the invention and that also bring considerable added value to our customers, to our customers' customers, and to end users.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued hereon.

Daniel P. Cedrone

Date: 4-20-04

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